CoE 197-S ME 8 Activity 1

1. Pulling an image

```
PS C:\WINDOWS\system32> docker images
REPOSITORY    TAG      IMAGE ID    CREATED    SIZE
PS C:\WINDOWS\system32> docker search ubuntu
NAME                                              DESCRIPTION                                    STARS   OFFICIAL   AUTOMATED
ubuntu                                            Ubuntu is a Debian-based Linux operating sys…  12331   [OK]
dorowu/ubuntu-desktop-lxde-vnc                    Docker image to provide HTML5 VNC interface …  538                [OK]
websphere-liberty                                 WebSphere Liberty multi-architecture images …  273     [OK]
rastasheep/ubuntu-sshd                            Dockerized SSH service, built on top of offi…  253                [OK]
consol/ubuntu-xfce-vnc                            Ubuntu container with "headless" VNC session…  240                [OK]
ubuntu-upstart                                    Upstart is an event-based replacement for th…  110     [OK]
1and1internet/ubuntu-16-nginx-php-phpmyadmin-mysql-5   ubuntu-16-nginx-php-phpmyadmin-mysql-5    50                 [OK]
open-liberty                                      Open Liberty multi-architecture images based…  46      [OK]
ubuntu-debootstrap                                debootstrap --variant=minbase --components=m…  44      [OK]
i386/ubuntu                                       Ubuntu is a Debian-based Linux operating sys…  25
nuagebec/ubuntu                                   Simple always updated Ubuntu docker images w…  24                 [OK]
1and1internet/ubuntu-16-apache-php-5.6            ubuntu-16-apache-php-5.6                       14                 [OK]
1and1internet/ubuntu-16-apache-php-7.0            ubuntu-16-apache-php-7.0                       13                 [OK]
1and1internet/ubuntu-16-nginx-php-phpmyadmin-mariadb-10   ubuntu-16-nginx-php-phpmyadmin-mariadb-10  11             [OK]
1and1internet/ubuntu-16-nginx-php-5.6-wordpress-4 ubuntu-16-nginx-php-5.6-wordpress-4            9                  [OK]
1and1internet/ubuntu-16-nginx-php-5.6             ubuntu-16-nginx-php-5.6                        8                  [OK]
1and1internet/ubuntu-16-apache-php-7.1            ubuntu-16-apache-php-7.1                       7                  [OK]
pivotaldata/ubuntu                                A quick freshening-up of the base Ubuntu doc…  4
1and1internet/ubuntu-16-nginx-php-7.0             ubuntu-16-nginx-php-7.0                        4                  [OK]
pivotaldata/ubuntu16.04-build                     Ubuntu 16.04 image for GPDB compilation        2
1and1internet/ubuntu-16-php-7.1                   ubuntu-16-php-7.1                              1                  [OK]
smartentry/ubuntu                                 ubuntu with smartentry                         1                  [OK]
1and1internet/ubuntu-16-sshd                      ubuntu-16-sshd                                 1                  [OK]
pivotaldata/ubuntu-gpdb-dev                       Ubuntu images for GPDB development             1
1and1internet/ubuntu-16-rspec                     ubuntu-16-rspec                                0                  [OK]
PS C:\WINDOWS\system32> docker pull ubuntu:16:04
invalid reference format
PS C:\WINDOWS\system32> docker pull ubuntu:16.04
16.04: Pulling from library/ubuntu
80bce60046fa: Pull complete
55a738a15540: Pull complete
e19cf0706c62: Pull complete
de4cdd6c27d1: Pull complete
Digest: sha256:9775877f420d453ef790e6832d77630a49b32a92b7bedf330adf4d8669f6600e
Status: Downloaded newer image for ubuntu:16.04
docker.io/library/ubuntu:16.04
```

```
PS C:\WINDOWS\system32> docker pull ubuntu:16.10
16.10: Pulling from library/ubuntu
dca7be20e546: Pull complete
40bca54f5968: Pull complete
61464f23390e: Pull complete
d99f0bcd5dc8: Pull complete
120db6f90955: Pull complete
Digest: sha256:8dc9652808dc091400d7d5983949043a9f9c7132b15c14814275d25f94bca18a
Status: Downloaded newer image for ubuntu:16.10
docker.io/library/ubuntu:16.10
PS C:\WINDOWS\system32> docker images
REPOSITORY    TAG        IMAGE ID        CREATED        SIZE
ubuntu        16.04      9ff95a467e45    2 weeks ago    135MB
ubuntu        16.10      7d3f705d307c    3 years ago    107MB
PS C:\WINDOWS\system32> docker rmi 31005225a745
Error: No such image: 31005225a745
PS C:\WINDOWS\system32> docker rmi ubuntu:16.10
Untagged: ubuntu:16.10
Untagged: ubuntu@sha256:8dc9652808dc091400d7d5983949043a9f9c7132b15c14814275d25f94bca18a
Deleted: sha256:7d3f705d307c7c225398e04d4c4f8512f64eb8a65959a1fb4514dfde18a047e7
Deleted: sha256:d9db289b9342d9617596cd6ee3bba988629e24d9afa5db4e4b0e4e491c65007d
Deleted: sha256:a87725e8597b97f2399bc3aa50b0e2eec903b8ce19055668d3befb012918205c
Deleted: sha256:38cf10a2801529348366953e9b933d3524360dedc91d3e4d5d7f941da0c973c9
Deleted: sha256:61172966249d43026dbd017eec3a9575e37bddf8a269a9f09ecb559d7bfe7fef
Deleted: sha256:57145c01eb80040fdd0a24cde20af4788605b49593188d4f7efab099af89a08e
PS C:\WINDOWS\system32> docker images
REPOSITORY    TAG        IMAGE ID        CREATED        SIZE
ubuntu        16.04      9ff95a467e45    2 weeks ago    135MB
```

2. Running our container

```
PS C:\WINDOWS\system32> docker run ubuntu:16.04 /bin/echo 'Hello world!'
Hello world!
PS C:\WINDOWS\system32> docker ps
CONTAINER ID   IMAGE       COMMAND    CREATED     STATUS      PORTS      NAMES
PS C:\WINDOWS\system32> docker ps -a
CONTAINER ID   IMAGE          COMMAND            CREATED          STATUS                  PORTS      NAMES
e4513a57e711   ubuntu:16.04   "/bin/echo 'Hello wo…"   24 seconds ago   Exited (0) 23 seconds ago          keen_snyder
PS C:\WINDOWS\system32> docker run ubuntu:16.04 /bin/bash
PS C:\WINDOWS\system32> docker ps -a
CONTAINER ID   IMAGE          COMMAND            CREATED          STATUS                  PORTS      NAMES
845874fceda2   ubuntu:16.04   "/bin/bash"        20 seconds ago   Exited (0) 19 seconds ago          clever_bartik
e4513a57e711   ubuntu:16.04   "/bin/echo 'Hello wo…"   2 minutes ago    Exited (0) 2 minutes ago           keen_snyder
PS C:\WINDOWS\system32> docker run -it ubuntu:16.04 /bin/bash
root@4ea639f07756:/# pwd
/
root@4ea639f07756:/# ls
bin  boot  dev  etc  home  lib  lib64  media  mnt  opt  proc  root  run  sbin  srv  sys  tmp  usr  var
root@4ea639f07756:/# exit
exit
```

```
PS C:\WINDOWS\system32> docker run -d ubuntu:16.04 /bin/sleep 3600
5b4577d99008c620abec73d7b8b5a132751ef3120e9df35d469e387f097b45b2
PS C:\WINDOWS\system32> docker ps
CONTAINER ID   IMAGE          COMMAND            CREATED          STATUS          PORTS      NAMES
5b4577d99008   ubuntu:16.04   "/bin/sleep 3600"  12 seconds ago   Up 11 seconds              charming_lovelace
PS C:\WINDOWS\system32> docker exec -it be7 /bin/bash
Error: No such container: be7
PS C:\WINDOWS\system32> docker exec -it 5b4 /bin/bash
root@5b4577d99008:/# ps aux
USER       PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root         1  0.0  0.0   4372   656 ?        Ss   17:40   0:00 /bin/sleep 3600
root         8  0.1  0.0  18232  3212 pts/0    Ss   17:45   0:00 /bin/bash
root        18  0.0  0.0  34420  2800 pts/0    R+   17:46   0:00 ps aux
root@5b4577d99008:/# exit
exit
PS C:\WINDOWS\system32> docker ps
CONTAINER ID   IMAGE          COMMAND            CREATED          STATUS          PORTS      NAMES
5b4577d99008   ubuntu:16.04   "/bin/sleep 3600"  6 minutes ago    Up 6 minutes               charming_lovelace
```

```
PS C:\WINDOWS\system32> docker stop 5b45
5b45
PS C:\WINDOWS\system32> docker ps -a
CONTAINER ID   IMAGE          COMMAND            CREATED          STATUS                   PORTS      NAMES
5b4577d99008   ubuntu:16.04   "/bin/sleep 3600"  7 minutes ago    Exited (137) 8 seconds ago          charming_lovelace
4ea639f07756   ubuntu:16.04   "/bin/bash"        9 minutes ago    Exited (0) 8 minutes ago            cranky_burnell
845874fceda2   ubuntu:16.04   "/bin/bash"        10 minutes ago   Exited (0) 10 minutes ago           clever_bartik
e4513a57e711   ubuntu:16.04   "/bin/echo 'Hello wo…"   12 minutes ago   Exited (0) 12 minutes ago           keen_snyder
```

3. Removing containers

```
PS C:\WINDOWS\system32> docker ps -a
CONTAINER ID   IMAGE          COMMAND            CREATED          STATUS                   PORTS      NAMES
5b4577d99008   ubuntu:16.04   "/bin/sleep 3600"  9 minutes ago    Exited (137) 2 minutes ago          charming_lovelace
4ea639f07756   ubuntu:16.04   "/bin/bash"        10 minutes ago   Exited (0) 10 minutes ago           cranky_burnell
845874fceda2   ubuntu:16.04   "/bin/bash"        12 minutes ago   Exited (0) 12 minutes ago           clever_bartik
e4513a57e711   ubuntu:16.04   "/bin/echo 'Hello wo…"   14 minutes ago   Exited (0) 14 minutes ago           keen_snyder
PS C:\WINDOWS\system32> docker rm 5b45
5b45
PS C:\WINDOWS\system32> docker run --rm ubuntu:16.04 /bin/echo 'Hello and goodbye!'
Hello and goodbye!
PS C:\WINDOWS\system32> docker ps -a
CONTAINER ID   IMAGE          COMMAND            CREATED          STATUS                   PORTS      NAMES
4ea639f07756   ubuntu:16.04   "/bin/bash"        12 minutes ago   Exited (0) 11 minutes ago           cranky_burnell
845874fceda2   ubuntu:16.04   "/bin/bash"        13 minutes ago   Exited (0) 13 minutes ago           clever_bartik
e4513a57e711   ubuntu:16.04   "/bin/echo 'Hello wo…"   15 minutes ago   Exited (0) 15 minutes ago           keen_snyder
```